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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
COMPLIANCE AND ENFORCEMENT

JUL 16 2012

Reply to: OCE-127

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FILE COPY

James Cagle, Risk Manager - EHS
Nu-West Industries, Inc.
Agrium Conda Phosphate Operations
3010 Conda Road
Soda Springs, Idaho 83276

Re: EPA comments to draft Revised On-Site Supplemental Investigation Work Plan; Administrative Order on Consent for Nu-West Industries, Inc.; Idaho Facility, Docket No. RCRA-10-2009-0186

Dear Mr. Cagle:

The purpose of this letter is to disapprove the draft Revised On-Site Supplemental Investigation Work Plan, dated June 25, 2012, submitted to EPA pursuant to the Administrative Order on Consent (Order), Docket No. RCRA-10-2009-0186. Enclosed is a list of comments that need to be addressed and deficiencies that need to be corrected.

In accordance with paragraph 69 of the Order, Nu-West Industries must submit a revised Work Plan within thirty days of receipt of this letter that responds to the comments received and corrects the deficiencies. Additional time to respond may be requested.

Should you have any questions, I may be reached at (206) 553-2964. Alternatively, you may reach me via email at: Magolske.Peter@epamail.epa.gov.

Thank you for your attention to this important matter.

Sincerely,

Peter Magolske
Air / RCRA Compliance Unit

Enclosure

cc: Brian Monson, Idaho Department of Environmental Quality
P. Scott Burton, Esq. Hunton and Williams LLP
Timothy J. Carlstedt, Esq. Hunton and Williams LLP

EPA comments to draft Revised On-Site Supplemental Investigation Work Plan

Page 2, Section 2.1.1

This section states the following: "Seven soil borings (SB-88 through SB-94) will be advanced around the North Car Wash Sump (Figure 2). The locations are subject to adjustment in the field as required by conditions such as underground piping and utilities."

EPA comment: It is not clear as to how far away from the North Car Wash Sump adjustments in the field may result in the actual location to be sampled. Minor adjustments in order to avoid underground infrastructure are understandable and acceptable. Sampling at more substantial distances from the North Car Wash Sump would negate the utility of the data gathered, and result in incomplete characterization of this area. Include a notification and concurrence requirement at the end of this paragraph as follows.

"Should any adjustments in the field be necessary, EPA will be notified of the revised sampling locations within one day of the completion of sampling at the North Car Wash Sump locations, SB-88 through SB-94, for review and concurrence of the revised locations."

Page 2, Section 2.1.2

This section states the following: "Seven soil borings (SB-95 through SB-101) will be advanced around the South Car Wash Sump (Figure 2). Borings SB-95 through SB-98 will be advanced near the four corners adjacent to the exterior of the concrete sump. Due to piping and tank infrastructure, and the presence of subsurface utilities, these borings will be advanced with a hand auger."

EPA comment: See comment above. Include a notification requirement at the end of this paragraph as follows.

"Should any adjustments in the field be necessary, EPA will be notified of the revised sampling locations within one day of the completion of sampling at the South Car Wash Sump locations, SB-95 through SB-101, for review and concurrence of the revised locations."

Page 5, Section 2.3.1

This section states the following: "Due to the limited mobility of radiological parameters and to maintain consistency with the initial soil sampling results, only the 1-2 foot bgs interval will be analyzed for gross alpha and gross beta. Twenty-five percent of the samples submitted for gross alpha and gross beta will be analyzed for radium 226 and radium 228 analyses, covering a broad range of gross alpha laboratory analyses."

EPA comment: Radiological analyses from sampling data collected in 2010 at the 1-2 foot depth intervals reported variable gross alpha activity from 1 - 80 pCi/g. A subset of those samples were analyzed for radium 226 and indicated activity from 2 - 45 pCi/g.

The Work Plan dated June 29, 2010 proposed to compare field gamma radiation measurements with laboratory results for radium 226 to create a correlation. Field gamma radiation measurements would then be compared to the generated correlation to estimate the concentration of radium 226 in the soil samples not submitted for laboratory analysis.

The draft Soil Investigation and Evaluation of Results report dated April 15, 2011 reported that, "Field gamma radiation measurements exhibited very little variation across the Facility, screening levels were between 0.01 and 0.04 mR/hr with the majority being between 0.02 and 0.03 mR/hr. Overall, field gamma radiation measurements showed no correlation with laboratory measurements for radium 226."

Given that no correlation was established between field gamma radiation levels and radium 226 activity in the soil, the high variability in both gross alpha activity and radium 226 activity identified from the limited radiological characterization performed in the on-site areas to date, and the apparent migration of other contaminants of concern to depths greater than 1-2 feet below surface, the limitation of radium 226 analyses to twenty-five percent and to only the 1-2 foot bgs interval does not provide adequate characterization.

The lack of complete radiological characterization for the radium 226 and radium 228 parameters remains a data gap in the site characterization.

Revise section 2.3.1 to provide for radium 226 and radium 228 analyses on all samples collected per the work plan, irrespective of depth.

Screening levels for radium 226 and radium 228 were established for the off-site investigation areas at background levels for each radionuclide. For radium 226 and radium 228 the background levels were 1.958 pCi/g and 1.756 pCi/g respectively. As the human health exposure risk driver for each radionuclide is below background, the screening levels will need to be set at background for the on-site soil investigation areas. See EPA letter dated April 19, 2012 for a complete technical explanation.

Page 6, Section 3

This section states the following: "The methodologies presented below were developed in consultation with WDC Exploration & Wells (WDC)."

EPA Comment: Revise Section 3 (bore hole advancement, vertical groundwater profiling, geophysical surveys, monitoring well installation, etc.) to be consistent with the procedure s and methods developed in the Addendum 2 to the Work Plan for Additional Requirements, dated July 10, 2012.

Page 7, Section 3.2.1

This section includes the following statement: "The annular space will be backfilled with a clean graded sand to create a filter pack extending a minimum of two (2) feet above the top of the screen."

EPA Comment: For groundwater monitoring wells, EPA typically specifies a "Colorado Silica" or a "Silica Filter Pack Sand". Due to the purity of the mineralogy, these types of sands are unlikely to interact chemically with the formation water during sampling. Revise the statement to specify the type of sand to be used – a Colorado Silica or Silica Filter Pack Sand.

Page 9, Section 3.2.1

This section includes the following statement: "The annular space will be backfilled with a clean sand filter pack installed via a tremie pipe to a minimum of two (2) feet above the top of the screen."

EPA Comment: Revise the statement to specify the type of sand to be used – a Colorado Silica or Silica Filter Pack Sand. See previous comment.

Page 10, Section 3.5

This section states the following: "The chemical analytical results for the groundwater samples will be compared to the Idaho Primary and Secondary Constituent Standards for groundwater (IDAPA 58.01.11) and EPA Drinking Water Standards (40 C.F.R. Parts 9, 141, and 142)."

EPA Comment: Revise this statement to correct the EPA reference as shown below.

"The chemical analytical results for the groundwater samples will be compared to the Idaho Primary and Secondary Constituent Standards for groundwater (IDAPA 58.01.11) and EPA National Primary Drinking Water Maximum Contaminant Levels (40 C.F.R. Part 141)."

Page 12, Section 5.2

This section states the following: "Nu-West will locate and identify all conveyance lines leading to the pond. These conveyance lines will be shown on a map in the final report. The lines will be flushed with raw water before using video equipment to view the inside of the pipe to check for breaches. Testing will be performed by remote video inspection and include a video record. The video inspection will be performed under the direction and in the presence of a qualified inspector. Reports of the findings and recommendations will be documented in the inspection database (currently DMAPS). The report will include any photographs or video associated with the inspection."

EPA Comment: The above description does not provide sufficient detail to evaluate the effectiveness of the work to be completed. No information is provided on the qualifications of the personnel, the type of survey instrumentation to be used, or the expertise of the company carrying out the surveys. Revise section to provide this additional level of detail.

Table 1

Footnote A states the following: "Actual sample locations, intervals, and analyses may be adjusted based on observations made in the field or based on the results of data for other (shallower) samples as described in the Work Plan."

EPA Comment: This broad qualifier does not provide any assurance that sufficient samples will be obtained or that complete analyses will be conducted. It is not clear how the results of data from shallow interval samples will be used to adjust sample locations, intervals, and analyses to be conducted for other sampling areas or depth intervals. The first two comments above to Sections 2.1.1 and 2.1.2 address the concerns as to interferences with underground piping and utilities. Delete footnote A.

Table 2

The laboratory reporting limits for the radiological parameters are stated to be "NS", and the screening levels for various metals, general chemistry, and radiological parameters are stated to be "NS".

EPA Comment: Revise table to provide the laboratory reporting limits for the radiological parameters. Revise table to include the screening values for the following parameters as set in EPA letter dated April 19, 2012: antimony, arsenic, barium, beryllium, cadmium, chromium (total), fluoride (total), iron, lead, manganese, nickel, selenium, thallium, and vanadium. For aluminum, the screening value will be the industrial level of 99,000 mg/kg. Add a footnote to the table to state what "NS" means.

Table 3

The first column in the table references "Cooling Pond Area", which appears to be in error.

EPA Comment: Remove reference to Cooling Pond Area.

Table 4

The table states that EPA maximum contaminant level for fluoride is "NS".

EPA Comment: Revise table to include the correct EPA maximum contaminant level value of 4 mg/l.

Appendix A, Standard Operating Procedure (SOP) 3

Two different SOPs are included in the Work Plan as SOP 3 – Groundwater Sampling.

EPA Comment: Either remove one of the two SOPs or clarify in the Work Plan the circumstances under which each SOP 3 is to be followed.